NKBA National Kitchen & Bath Association

Greening Kitchens & Baths

By David Johnston
(From the NKBA's *Profiles Magazine*)

Green building is the fastest growing phenomena in the residential market. In a recent market research study by McGraw Hill, 85 percent of homeowners say they learned about green building through word-of-mouth referrals. This is important to understand because advertising has been the mainstay of the construction industry. That creates a wonderful opportunity for you to lead the market to greener products.

On the hardware side, the Japanese and Australian manufactures lead with dual flush toilets and low-flow fixtures. Today, most American manufacturers have comparable products. However, in the cabinet market, U.S. producers are still behind in what consumers want.

What is Green Building?

Green building rests on a tripod of three fundamental principles. The first is energy efficiency beyond local codes. Many green homes today are 50 percent more efficient than conventional homes, while zero energy homes are being built across the country.

The second principle is resource conservation. Using our rapidly dwindling resources to their highest and best use is paramount. Water is perhaps the most important resource to conserve. Fresh water is less than 1 percent of all the water on the planet and the population continues to grow exponentially worldwide. The third leg is indoor air quality, or IAQ. Market research studies show IAQ to be the driver among women who are looking for healthier environments for their children.

Choosing the Products

As a general rule, selecting the least toxic materials is the best place to start, but isn't always as simple as it appears. Materials should be chosen only after considering the context in which they will be used. In attempting to build in a truly green fashion, there will be tradeoffs.

There are several questions to consider. What risks will the material pose to people living in the house? Was the material produced or harvested in the least disruptive manner possible? Can it be recycled at the end of its useful life? Will the application be durable? How much energy was used to make the product and how far did the product travel to reach your customer's doorstep? Will it offgas entirely before your clients inhabit the space yet last much longer than its environmentally preferable alternative?

Green building amounts to weighing these questions and making the best decision. Few building materials pass every test, but making safety, durability, and resource conservation an important part of the mix is an important step in the right direction.

Interior Cabinets

The majority of the standard cabinetry on the market today contains particleboard made with a urea formaldehyde binder that emits formaldehyde and other harmful chemicals. Most adhesives and binders used in wood products contain high levels of formaldehyde.

There are a growing number of alternatives, such as panels made from compressed wheat straw and MDI resins that do not emit any formaldehyde. Other alternatives for cabinet box construction include Medite a brand of formaldehyde-free medium density fiberboard, and SkyBlend, a wood fiberboard made without urea formaldehyde. When considering any of these options, remember that the more recycled fiber used in production the better.

For cabinet faces, a variety of green-friendly species are available. In addition to FSC-certified wood harvested from sustainably managed forests, Lyptus, which is a plantation-grown eucalyptus, and a variety of bamboo products are rapidly renewable options.

Countertops

Homeowners have a tremendous range of choices for countertops and with a few caveats, almost all of them can comfortably be used in a green home.

Solid surface material is an inert, non-porous plastic resin with a mineral filler that, like laminate, can take on the appearance of a variety of materials. Paper composite countertops are also available, such as Richlite, which uses pulp from sustainably managed forests, and PaperStone, which incorporates up to 100 percent post-consumer recycled paper pulp. These surfaces are durable and minor dings can be sanded and buffed out.

Tile, including ceramic, porcelain, earthware, glass, terrazzo, and other aggregates, makes for a durable and sometimes less expensive countertop surface. Looking for tile with recycled content is your best bet in terms of finding a green option. Use a non-toxic grout and sealant to preserve IAQ.

Wood of just about any kind can be fashioned into a countertop. Maple butcher block, for instance, is tough, shock resistant, and close-grained, without open pores where food and bacteria can collect. Butcher block is often made from recycled material from the furniture and flooring industries—a green advantage. If using another species, look for an FSC label. Because wood is susceptible to water damage, maintaining a good, nontoxic sealed finish is important. Another wood-like option is bamboo, which is growing in popularity for countertops, cabinets and flooring, as it allows for a variety of exotic looks that you won't find with wood.

Concrete can be formed into an infinite variety of shapes and enlivened with pigments, inlays, and decorative aggregate. Concrete makes a very durable, heat-resistant surface, but like stone, it must be resealed occasionally to resist stains and can experience hairline cracks. Concrete with recycled fly-ash content is less likely to crack over time.

It's an exciting time in the kitchen and bath industry. There's plenty of room for innovation and invention as new products come on the market. Companies that get on the green bandwagon soon will be in a position to grab market share and differentiation.

David Johnston of What's Working, Inc. is an expert in the advantages of remodeling in an environmentally responsible manner. A leading thinker behind the green building movement, Johnston has been a past speaker at K/BIS and his approach to green building has been embraced by municipalities, homeowners, building professionals, and sustainability advocates.

National Kitchen &
Bath Association
687 Willow Grove Street
Hackettstown, NJ 07840
(800) THE-NKBA